



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,528	04/15/2004	Cheng Shen	SP-1283	8389
44388	7590	03/13/2007	EXAMINER	
SOLAE, LLC			WEIER, ANTHONY J	
P. O. BOX 88940				
ST. LOUIS, MO 63188			ART UNIT	PAPER NUMBER
			1761	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/825,528

Applicant(s)

SHEN ET AL.

Examiner

Anthony Weier

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 6 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, and 10-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 6, and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Shen (U.S. Patent Application No. US 20040258827).

Shen discloses an acidic beverage comprising a blend of a hydrated protein stabilizing agent (e.g. pectin and high methoxy pectin; 0.5%) with acid (e.g. ascorbic) to provide a first component with a pH of 2-5.5 with a hydrated protein material (e.g. hydrolyzed soy protein isolate) having a solids content of up to 10%, said blend having a pH as called for (e.g. pH 3.8), wherein said blend having the particular ratios of the various components as called for in the instant claims (see paragraphs 28, 34, and 38-43).

3. Claims 1, 5, 6 and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang (U.S. Patent No. 6887508).

Huang discloses an acidic beverage wherein a soybean protein isolate is hydrated, blended with a solution including high methoxy pectin (e.g. 0.35% and pH of 3), wherein said acidic beverage is pH adjusted with, for example, citric acid to 3.85 pH.

4. Claims 1, 5, 6 and 10-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel et al (U.S. Patent No. 6811804).

Patel et al discloses a process of preparing an acidic beverage wherein a soybean protein isolate is hydrated, blended with a solution including high methoxyl pectin (about 2%), pH adjusted with, for example, citric acid to 4 pH.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5, 6, and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (U.S. Patent Application No. US 20040258827) or Huang et al taken together with either one of Hoer et al or Payne et al.

Shen is silent regarding the manner in which the protein material is dried. In other words, it is not clear whether same has been dried by spray drying (which would be contrary to the product produced in the instant invention) or wherein drying occurs through other means such as air drying or vacuum drying. Huang et al does refer to spray-drying as a preferred means but is not limited to same. Nevertheless, if it is shown that upon drying the Shen, Patel et al, or Huang protein by conventional means as set forth therein, same would not always retain the particular functionality attained in the instant invention, the following should be noted. However, it is known to dry soy protein in such manner that functionality is retained as set forth, for example, in Hoer et al (col. 2). In addition, Payne et al the use of dry soy protein isolate product in compositions wherein same are "highly dispersible, soluble, and functional" (e.g. col. 2, lines 45-53). It would have been obvious to one having ordinary skill in the art at the time of the

invention to have employed the dried products in Hoer et al or Payne et al to provide protein which will impart better functionality in the final product of Shen.

***Applicant's Arguments***

7. Applicant's arguments filed 12/21/06 have been fully considered but they are not persuasive.

Applicant argues that Shen, Huang, and Patel et al disclose products wherein the soy protein used therein has been dried contrary to the instant claims call for said protein not being subjected to spray drying. Applicant further argues that spray drying of the protein would result in same having less functionality than if left in a liquid form. It should be first noted that the instant claims do not require that the aqueous protein material retain full functionality nor do the instant claims exclude all forms of drying. That said, although said arguments pertain to a method step, the instant rejected claims are drawn to products. It should be noted that Applicant has not provided any direct evidence to support the assertion that the proteins of Shen, Huang, and Patel et al must be spray-dried and that such spray-drying treatment would result in a protein and final product containing said protein that differs in functionality (due to said spray drying or any drying for that matter) to such an extent as to provide a product falling outside the scope of the instant claims. Nevertheless, Shen does not disclose how the proteins are dried beyond saying drying is accomplished by conventional means (paragraph 30). Likewise, Huang and Patel et al do not restrict the method of drying same. There are various methods for drying including air drying which are less destructive to the functionality of the protein than spray drying, and it has not been shown that the functionality of the Shen, Huang, or Patel et al products have been compromised to a different degree as the instant product. Nevertheless, it

Art Unit: 1761

would have been obvious to one having ordinary skill in the art to have dried said protein in such a way as to retain excellent functionality as set forth, for example, in Hoer et al as discussed above.

Applicant argues that Huang et al requires a protein stabilizing agent comprising both high methoxy pectin and a propylene glycol alginate. However, the instant claims do not exclude the presence of other ingredients such as a second protein stabilizing component. In particular, the instant claims call for an acid beverage “comprising” ingredients wherein same is not limited to the several expressly articulated ingredients due to the open language of “comprising”.

Applicant argues that the drying process of Hoer et al employs enzymes and that enzymes are not used in the instant invention. However, the instant claims do not exclude processes utilizing enzymes. Applicant argues the differences between Hoer et al and the instant claims. However, although differences do exist, it should be noted that Hoer et al was not applied alone against the instant claims and was provided for its teaching of soy protein products which are dry yet retain functionality.

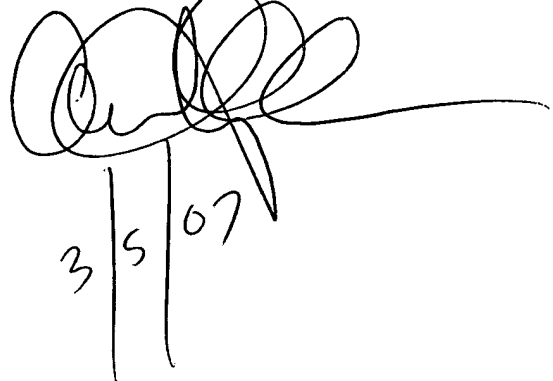
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier  
March 5, 2007

Anthony Weier  
Primary Examiner  
Art Unit 1761



3/5/07